

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 09/724,569A
Source: EFW/16
Date Processed by STIC: 2-7-05

ENTERED



IFW16

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/724,569A

DATE: 02/07/2005

TIME: 08:30:00

Input Set : A:\152706446 Sub Seq List.txt
 Output Set: N:\CRF4\02072005\I724569A.raw

4 <110> APPLICANT: Anderson, John P.
 5 Basi, Gurigbal
 6 Doane, Minh Tam
 7 Frigon, Normand
 8 John, Varghese
 9 Power, Michael
 10 Sinha, Sukanto
 11 Tatsuno, Gwen
 12 Tung, Jay
 13 Wang, Shuwen
 14 McConlogue, Lisa
 16 <120> TITLE OF INVENTION: Beta-Secretase Enzyme Compositions and
 17 Methods
 19 <130> FILE REFERENCE: 228-US-NEW2C6
 21 <140> CURRENT APPLICATION NUMBER: 09/724,569A
 22 <141> CURRENT FILING DATE: 2000-11-28
 24 <150> PRIOR APPLICATION NUMBER: US 09/501,708
 25 <151> PRIOR FILING DATE: 2000-02-10
 27 <150> PRIOR APPLICATION NUMBER: 60/119,571
 28 <151> PRIOR FILING DATE: 1999-02-10
 30 <150> PRIOR APPLICATION NUMBER: 60/139,172
 31 <151> PRIOR FILING DATE: 1999-06-15
 33 <160> NUMBER OF SEQ ID NOS: 104
 35 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 37 <210> SEQ ID NO: 1
 38 <211> LENGTH: 1503
 39 <212> TYPE: DNA
 40 <213> ORGANISM: Homo sapiens
 42 <400> SEQUENCE: 1
 43 atggcccaag ccctgcctg gtcctgtctg tggatggcg cgggagtgtc gcctgcccac 60
 44 ggcacccagc acggcatccg gctgcccctg cgcagcggcc tggggggcgc cccccctgggg 120
 45 ctgcggctgc cccgggagac cgacgaagag cccgaggagc cggccggag gggcagctt 180
 46 gtggagatgg tggacaacct gaggggcaag tcggggcagg gctactacgt ggagatgacc 240
 47 gtgggcagcc ccccgccagac gctcaacatc ctgggtggata caggcagcag taactttgca 300
 48 gtgggtctg ccccccaccc ctccctgcat cgctactacc agaggcagct gtccagcaca 360
 49 taccgggacc tccggaaaggg ttgttatgtc ccctacaccc agggcaagtg ggaaggggag 420
 50 ctgggcaccc acctggtaag catccccat ggccccaacg tcactgtgcg tgccaaacatt 480
 51 gctgccatca ctgaatcaga caagtttttc atcaacggct ccaactggga aggcatcctg 540
 52 gggctggcct atgctgagat tgccaggcct gacgactccc tggagccttt ctggactct 600
 53 ctggtaaaggc agacccacgt tcccaaccc tcctccctgc agctttgtgg tgctggcttc 660
 54 cccctcaacc agtctgaagt gctggcctct gtcggaggga gcatgatcat tggaggtatc 720
 55 gaccactcgc tgtacacagg cagtctctgg tatacaccca tccggcggga gtggatttat 780
 56 gaggtatca ttgtgcgggt ggagatcaat ggacaggatc tgaaaatggc ctgcaaggag 840

(ps, 6)

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/724,569A

DATE: 02/07/2005
TIME: 08:30:00

Input Set : A:\152706446 Sub Seq List.txt
Output Set: N:\CRF4\02072005\I724569A.raw

57	tacaactatg	acaagagcat	tgtggacagt	ggcaccacca	accttcgttt	gcccaagaaaa	900
58	gtgttgaag	ctgcagtcaa	atccatcaag	gcagcctcct	ccacggagaa	gttccctgat	960
59	ggttctggc	taggagagca	gctgggtgtgc	tggcaagcag	gcaccacccc	ttgaaacatt	1020
60	ttccccagtca	tctcactcta	cctaattgggt	gaggttacca	accagtccctt	ccgcatcacc	1080
61	atccttccgc	agcaataacct	gcccggcagg	gaagatgtgg	ccacgtccca	agacgactgt	1140
62	tacaagtttgc	ccatctca	gtcatccacg	ggcaactgtta	tggagctgt	tatcatggag	1200
63	ggcttctacg	ttgtcttga	tcggggcccg	aaacgaattt	gtttgtctgt	cagcgcttgc	1260
64	catgtgcacg	atgagttcag	gacggcagcg	gtggaaaggcc	cttttgtcac	cttgacatgt	1320
65	gaagactgtg	gctacaacat	tccacagaca	gatgagtcaa	ccctcatgac	catagcctat	1380
66	gtcatggctg	ccatctgcgc	cctcttcatg	ctgcccactct	gcctcatgtt	gtgtcagtgg	1440
67	cgcgcctcc	gctgcctcg	ccagcagcat	gatgactttt	ctgatgacat	ctccctgctg	1500
68	aag						1503
70	<210>	SEQ ID NO:	2				
71	<211>	LENGTH:	501				
72	<212>	TYPE:	PRT				
73	<213>	ORGANISM:	Homo sapiens				
75	<400>	SEQUENCE:	2				
76	Met Ala Gln Ala Leu Pro Trp Leu Leu Leu Trp Met Gly Ala Gly Val						
77	1	5	10	15			
78	Leu Pro Ala His Gly Thr Gln His Gly Ile Arg Leu Pro Leu Arg Ser						
79	20	25	30				
80	Gly Leu Gly Gly Ala Pro Leu Gly Leu Arg Leu Pro Arg Glu Thr Asp						
81	35	40	45				
82	Glu Glu Pro Glu Glu Pro Gly Arg Arg Gly Ser Phe Val Glu Met Val						
83	50	55	60				
84	Asp Asn Leu Arg Gly Lys Ser Gly Gln Gly Tyr Tyr Val Glu Met Thr						
85	65	70	75	80			
86	Val Gly Ser Pro Pro Gln Thr Leu Asn Ile Leu Val Asp Thr Gly Ser						
87	85	90	95				
88	Ser Asn Phe Ala Val Gly Ala Ala Pro His Pro Phe Leu His Arg Tyr						
89	100	105	110				
90	Tyr Gln Arg Gln Leu Ser Ser Thr Tyr Arg Asp Leu Arg Lys Gly Val						
91	115	120	125				
92	Tyr Val Pro Tyr Thr Gln Gly Lys Trp Glu Gly Glu Leu Gly Thr Asp						
93	130	135	140				
94	Leu Val Ser Ile Pro His Gly Pro Asn Val Thr Val Arg Ala Asn Ile						
95	145	150	155	160			
96	Ala Ala Ile Thr Glu Ser Asp Lys Phe Phe Ile Asn Gly Ser Asn Trp						
97	165	170	175				
98	Glu Gly Ile Leu Gly Leu Ala Tyr Ala Glu Ile Ala Arg Pro Asp Asp						
99	180	185	190				
100	Ser Leu Glu Pro Phe Phe Asp Ser Leu Val Lys Gln Thr His Val Pro						
101	195	200	205				
102	Asn Leu Phe Ser Leu Gln Leu Cys Gly Ala Gly Phe Pro Leu Asn Gln						
103	210	215	220				
104	Ser Glu Val Leu Ala Ser Val Gly Gly Ser Met Ile Ile Gly Gly Ile						
105	225	230	235	240			
106	Asp His Ser Leu Tyr Thr Gly Ser Leu Trp Tyr Thr Pro Ile Arg Arg						
107	245	250	255				

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/724,569A

DATE: 02/07/2005
TIME: 08:30:00

Input Set : A:\152706446 Sub Seq List.txt
Output Set: N:\CRF4\02072005\I724569A.raw

```

108 Glu Trp Tyr Tyr Glu Val Ile Ile Val Arg Val Glu Ile Asn Gly Gln
109          260           265           270
110 Asp Leu Lys Met Asp Cys Lys Glu Tyr Asn Tyr Asp Lys Ser Ile Val
111          275           280           285
112 Asp Ser Gly Thr Thr Asn Leu Arg Leu Pro Lys Lys Val Phe Glu Ala
113          290           295           300
114 Ala Val Lys Ser Ile Lys Ala Ala Ser Ser Thr Glu Lys Phe Pro Asp
115 305           310           315           320
116 Gly Phe Trp Leu Gly Glu Gln Leu Val Cys Trp Gln Ala Gly Thr Thr
117          325           330           335
118 Pro Trp Asn Ile Phe Pro Val Ile Ser Leu Tyr Leu Met Gly Glu Val
119          340           345           350
120 Thr Asn Gln Ser Phe Arg Ile Thr Ile Leu Pro Gln Gln Tyr Leu Arg
121          355           360           365
122 Pro Val Glu Asp Val Ala Thr Ser Gln Asp Asp Cys Tyr Lys Phe Ala
123          370           375           380
124 Ile Ser Gln Ser Ser Thr Gly Thr Val Met Gly Ala Val Ile Met Glu
125 385           390           395           400
126 Gly Phe Tyr Val Val Phe Asp Arg Ala Arg Lys Arg Ile Gly Phe Ala
127          405           410           415
128 Val Ser Ala Cys His Val His Asp Glu Phe Arg Thr Ala Ala Val Glu
129          420           425           430
130 Gly Pro Phe Val Thr Leu Asp Met Glu Asp Cys Gly Tyr Asn Ile Pro
131          435           440           445
132 Gln Thr Asp Glu Ser Thr Leu Met Thr Ile Ala Tyr Val Met Ala Ala
133          450           455           460
134 Ile Cys Ala Leu Phe Met Leu Pro Leu Cys Leu Met Val Cys Gln Trp
135 465           470           475           480
136 Arg Cys Leu Arg Cys Leu Arg Gln Gln His Asp Asp Phe Ala Asp Asp
137          485           490           495
138 Ile Ser Leu Leu Lys
139          500
141 <210> SEQ ID NO: 3
142 <211> LENGTH: 24
143 <212> TYPE: DNA
144 <213> ORGANISM: Homo sapiens
146 <400> SEQUENCE: 3
147 gagagacgar garccwagg agcc                                24
149 <210> SEQ ID NO: 4
150 <211> LENGTH: 24
151 <212> TYPE: DNA
152 <213> ORGANISM: Artificial Sequence
154 <220> FEATURE:
155 <223> OTHER INFORMATION: Degenerate oligonucleotide primer derived from SEQ
156 ID NO: 2
158 <400> SEQUENCE: 4
159 gagagacgar garccwgaag agcc                                24
161 <210> SEQ ID NO: 5
162 <211> LENGTH: 24

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/724,569A

DATE: 02/07/2005

TIME: 08:30:00

Input Set : A:\152706446 Sub Seq List.txt
Output Set: N:\CRF4\02072005\I724569A.raw

163 <212> TYPE: DNA
164 <213> ORGANISM: Artificial Sequence
166 <220> FEATURE:
167 <223> OTHER INFORMATION: Degenerate oligonucleotide primer derived from SEQ
168 ID NO: 2
170 <400> SEQUENCE: 5
171 gagagacgar garccwgaag aacc 24
173 <210> SEQ ID NO: 6
174 <211> LENGTH: 24
175 <212> TYPE: DNA
176 <213> ORGANISM: Artificial Sequence
178 <220> FEATURE:
179 <223> OTHER INFORMATION: Degenerate oligonucleotide primer derived from SEQ
180 ID NO: 2
182 <400> SEQUENCE: 6
183 gagagacgar garccwgagg aacc 24
185 <210> SEQ ID NO: 7
186 <211> LENGTH: 23
187 <212> TYPE: DNA
188 <213> ORGANISM: Artificial Sequence
190 <220> FEATURE:
191 <223> OTHER INFORMATION: Degenerate oligonucleotide primer derived from SEQ
192 ID NO: 2
194 <400> SEQUENCE: 7
195 agagacgarg arccsgagga gcc 23
197 <210> SEQ ID NO: 8
198 <211> LENGTH: 23
199 <212> TYPE: DNA
200 <213> ORGANISM: Artificial Sequence
202 <220> FEATURE:
203 <223> OTHER INFORMATION: Degenerate oligonucleotide primer derived from SEQ
204 ID NO: 2
206 <400> SEQUENCE: 8
207 agagacgarg arccsgaaga gcc 23
209 <210> SEQ ID NO: 9
210 <211> LENGTH: 23
211 <212> TYPE: DNA
212 <213> ORGANISM: Artificial Sequence
214 <220> FEATURE:
215 <223> OTHER INFORMATION: Degenerate oligonucleotide primer derived from SEQ
216 ID NO: 2
218 <400> SEQUENCE: 9
219 agagacgarg arccsgaaga acc 23
221 <210> SEQ ID NO: 10
222 <211> LENGTH: 23
223 <212> TYPE: DNA
224 <213> ORGANISM: Artificial Sequence
226 <220> FEATURE:
227 <223> OTHER INFORMATION: Degenerate oligonucleotide primer derived from SEQ

RAW SEQUENCE LISTING DATE: 02/07/2005
PATENT APPLICATION: US/09/724,569A TIME: 08:30:00

Input Set : A:\152706446 Sub Seq List.txt
Output Set: N:\CRF4\02072005\I724569A.raw

228 ID NO: 2
230 <400> SEQUENCE: 10
231 agagacgarg arccsgagga acc 23
233 <210> SEQ ID NO: 11
234 <211> LENGTH: 23
235 <212> TYPE: DNA
236 <213> ORGANISM: Artificial Sequence
238 <220> FEATURE:
239 <223> OTHER INFORMATION: Degenerate oligonucleotide primer derived from SEQ
240 ID NO: 2
242 <400> SEQUENCE: 11
243 cgtcacagrt trtcaaccat ctc 23
245 <210> SEQ ID NO: 12
246 <211> LENGTH: 23
247 <212> TYPE: DNA
248 <213> ORGANISM: Artificial Sequence
250 <220> FEATURE:
251 <223> OTHER INFORMATION: Degenerate oligonucleotide primer derived from SEQ
252 ID NO: 2
254 <400> SEQUENCE: 12
255 cgtcacagrt trtctaccat ctc 23
257 <210> SEQ ID NO: 13
258 <211> LENGTH: 23
259 <212> TYPE: DNA
260 <213> ORGANISM: Artificial Sequence
262 <220> FEATURE:
263 <223> OTHER INFORMATION: Degenerate oligonucleotide primer derived from SEQ
264 ID NO: 2
266 <400> SEQUENCE: 13
267 cgtcacagrt trtccaccat ctc 23
269 <210> SEQ ID NO: 14
270 <211> LENGTH: 23
271 <212> TYPE: DNA
272 <213> ORGANISM: Artificial Sequence
274 <220> FEATURE:
275 <223> OTHER INFORMATION: Degenerate oligonucleotide primer derived from SEQ
276 ID NO: 2
278 <400> SEQUENCE: 14
279 cgtcacagrt trtcgaccat ctc 23
281 <210> SEQ ID NO: 15
282 <211> LENGTH: 23
283 <212> TYPE: DNA
284 <213> ORGANISM: Artificial Sequence
286 <220> FEATURE:
287 <223> OTHER INFORMATION: Degenerate oligonucleotide primer derived from SEQ
288 ID NO: 2
290 <400> SEQUENCE: 15
291 cgtcacagrt trtcaaccat ttc 23
293 <210> SEQ ID NO: 16

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 02/07/2005
PATENT APPLICATION: US/09/724,569A TIME: 08:30:01

Input Set : A:\152706446 Sub Seq List.txt
Output Set: N:\CRF4\02072005\I724569A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:22; N Pos. 12
Seq#:23; N Pos. 12
Seq#:24; N Pos. 12
Seq#:25; N Pos. 12
Seq#:26; N Pos. 7
Seq#:27; N Pos. 7
Seq#:28; N Pos. 3,12
Seq#:29; N Pos. 3,12
Seq#:34; N Pos. 16
Seq#:35; N Pos. 16
Seq#:36; N Pos. 16
Seq#:37; N Pos. 16
Seq#:48; N Pos. 6164,6238,6254,6255,6256,6257,6258,6259,6260,6261,6262,6263
Seq#:48; N Pos. 6264,6265,6266,6267,6268,6269,6270,6271,6272
Seq#:61; Xaa Pos. 4
Seq#:72; Xaa Pos. 10
Seq#:73; Xaa Pos. 5
Seq#:76; N Pos. 6,18,27,30,33,36,39,42,48,57
Seq#:78; Xaa Pos. 3
Seq#:81; Xaa Pos. 4

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/724,569A

DATE: 02/07/2005

TIME: 08:30:01

Input Set : A:\152706446 Sub Seq List.txt
Output Set: N:\CRF4\02072005\I724569A.raw

L:379 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
L:395 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0
L:411 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:427 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
L:443 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0
L:459 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0
L:475 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0
L:491 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0
L:551 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0
L:567 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:0
L:583 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:0
L:599 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0
L:960 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:6120
M:341 Repeated in SeqNo=48
L:1475 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:0
L:1967 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:72 after pos.:0
L:1984 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:73 after pos.:0
L:2112 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76 after pos.:0
L:2140 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:78 after pos.:0
L:2183 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:81 after pos.:0